

polygon. *See* September 7, 2005 Office Action, pg. 3. The Patent Office alleges that Synder *et al.* supplies the necessary disclosure to overcome the acknowledged deficiencies of Dermer.

While supposedly acknowledging that Dermer fails to teach the decomposition of a polygon into smaller image areas based on straight lines passing through a polygon vertex and the boundaries of the divided polygon, the Patent Office persists in arguing that Dermer “discloses a trapping area creating method comprises dividing an image (*e.g.*, separation of color images via step 128 of fig. 1) ... by passing a straight line through at least one vertex of the polygons....” As discussed previously, Dermer does not teach or suggest dividing an image comprised of polygons into a plurality of image areas.¹ For example, Figure 7a (cited by the Patent Office) illustrates lines A, B, C, D, E, F, G and H passing through the vertices of the polygons “abcd” and “efgh”. However, nowhere in Dermer is there any teaching or suggestion that the polygons “abcd” and “efgh” are divided into smaller areas based on the lines A, B, C, D, E, F, G and H. For example, Dermer does not define an image area comprising the polygon boundaries “ab” and “ad” and the line B. The citation to Figures 17-20 is similarly unavailing, as these Figures only disclose the trapping at a color boundary line. There is no teaching or suggestion in these Figures that the color boundary was formed in a manner consistent with the method recited in the claims of the instant application.

¹ Dermer discloses rearranging the boundaries of the shapes comprising the image. Division of the image into a plurality of image areas is not performed. For example, color regions 210 and 220 are simply remapped into the color regions 210 and 220 shown in Figure 14a or 14b of Dermer.

The combination of Dermer and Synder *et al.* fails to teach or suggest the image area designation as recited in claim 1. The portions of Synder *et al.* cited by the Patent Office describes the division of an image into gsprite chunk data, which is processed at a given number of scan lines at a time for display. For example, Synder *et al.* disclose that the gsprite chunk data is processed at 32 scan lines at a time. Contrary to the Patent Office's assertion, there is no teaching or suggestion that Synder *et al.* purposely create the boundary lines of gsprite chunk data at the vertices of polygons to divide the polygons for color trapping. In text at col. 14, lines 49-59, cited by the Patent Office, Synder *et al.* disclose the following:

The next step is to determine how to divide the object geometry among the chunks (250). The image preprocessor determines how the geometric primitives (e.g. polygons) should be divided among the chunks by transforming the polygons to 2-D space (252) and determining which chunk or chunks the polygons project into. *Due to the expense of clipping polygons, the preferred approach is to not clip the polygons lying at the edge of a chunk.* Instead, a chunk includes polygons that overlap its edge. *If a polygon extends over the border of two chunks, for example, in this approach the vertices of the polygon are included in each chunk.* (emphasis added)

Applicant does not understand how the above-cited text supports the Patent Office's position that "it is obvious for the chunk image areas be designated and represented by straight lines passing through the vertices of the polygons and the boundaries of the divided polygons." At best, the above cited text is cumulative to Figure 7 of Dermer, which shows lines A, B, C, D, E, F, G and H passing through the vertices of the polygons "abcd" and "efgh", but fails to shown that the polygons "abcd" and "efgh" are divided into smaller areas based on the lines A, B, C, D, E, F, G and H. In the text from Synder *et al.*, all that is disclosed is that a polygon that straddles the boundary lines of adjacent gsprite chunks is included in each gsprite chunk. From the above

cited text, the Patent Office bootstraps into a discussion regarding chunks of polygons defining meshes that represent a number of span lines for each section that are processed based on the number of vertex points within a region, and that interconnected polygons encompass image areas designated by the straight lines passing through the polygon vertices. This is all circular reasoning on the part of the Patent Office. If Synder *et al.* truly disclosed the passing of straight lines through polygon vertices for the purposes recited in claim 1, then one would expect to see disclosure of such a technique in columns 31 and 32 of Synder *et al.*, which discusses the processing of an object using gsprites. Nowhere is there any disclosure in those columns (or anywhere else in Synder *et al.*) of the polygon division technique for trapping as recited in the present invention. Thus, Applicant submits that the combination of Dermer and Synder *et al.* cannot fulfill the “all limitations” prong of a *prima facie* case of obviousness with respect to claim 1, as required by *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991).

Applicant further submits that one of skill in the art would not be motivated to combine the two references. Since Synder *et al.* is directed to the generation of computer graphics using gsprites, Synder *et al.* belong to a different technical area than that of the present invention and Dermer. Thus, there are no grounds for combining Dermer and Synder *et al.*, regardless of the technique disclosed in Ishida. Furthermore, even if it was possible to combine those two techniques, Synder *et al.* fail to teach or suggest dividing an image by passing a straight line through at least one polygon vertex.

Although the Patent Office provides a motivation analysis with respect to dividing an image to render a high quality image, both Dermer and Synder *et al.* lack any teaching or suggestion about the desirability of dividing of an image (composed of polygons) into a plurality of image areas by at least one straight line passing through at least one polygon vertex such that the image areas are formed by the straight line and the boundaries of a divided polygon. Thus, Applicant submits that the combination of Dermer and Synder *et al.* cannot fulfill the motivation prong of a *prima facie* case of obviousness with respect to claim 1, as required by *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999) and *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001).

Based on the foregoing reasons, Applicant submits that claim 1 is in condition for allowance over the combination of Dermer and Synder *et al.*, and further submits that claims 2-5 are allowable as well, at least by virtue of their dependency from claim 1. Applicant respectfully requests that the Patent Office reconsider and withdraw the § 103(a) rejection of claims 1-5.

With respect to claims 6 and 7, Applicant submits that claims 6 and 7 are allowable for at least the same reasons discussed above with respect to claim 1, in that the combination of Dermer and Synder *et al.* fails to teach or suggest dividing of an image (composed of polygons) into a plurality of image areas by at least one straight line that passed through a polygon vertex such that the image areas are formed by the straight line and the boundaries of a divided polygon. Thus, Applicant submits that claims 6 and 7 are allowable, and respectfully requests that the Patent Office reconsider and withdraw the § 103(a) rejection of claims 6 and 7.

RESPONSE UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO. 10/000,065
ATTORNEY DOCKET NO. Q67493

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

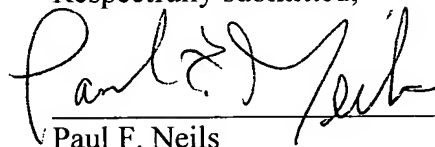
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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul F. Neils", written over a horizontal line.

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